Approved For Release 2004/02/11 : CIA-RDP78B05703A000300020027-2 (When Filled In) DATE REPLY REQUESTED 30 March 1970 SPEED LETTER LETTER NO. YES PSG-040/70 TO : Executive Director, NPIC FROM: Chief, Production Services Group ATTN: SUBJECT: Information Attached are copies of three separate unrelated memoranda and a one page extract from the EDP Weekly. These are sent just as information pieces, on the change that you might have a couple of minutes to read them and because I thought that you would find them of interest. The first one gives a brief description of the various IIS programs that I felt would be of interest to you before the update IIS briefing on 9 April. The next two note improvements in existing programs, sent just to let you know that we are continually updating and improving on-going programs. The fourth item, from the EDP Weekly, notes a new Data System and indicates that this is a "first" and the only system that can perform the three noted tasks concurrently. The point to note here is that NPIC, on its' 494 computer has been executing this type of operation for some time now. 25X1 SIGNATURE DATE REPLY

> **Declass Review by** NIMA/DOD

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| •                                                                                                                                                                      | MEMORANDUM FOR:                                                                   | DDI Planning Staff                                                                              |  |
|                                                                                                                                                                        | THROUGH:                                                                          | Chief, Automated Information Division, PSG/NPIC Chief, Systems Programming Branch, AID/PSG/NPIC |  |
|                                                                                                                                                                        | SUBJECT:                                                                          | Present and Planned NPIC/PSG/AID ADP Environment                                                |  |
| 1. Attached is a very quick run down of the IIS programs, their functions and core requirements. This is the first installment per our discussions earlier this month. |                                                                                   |                                                                                                 |  |
|                                                                                                                                                                        | 2. If you                                                                         | have any questions, I can be reached on extension25X                                            |  |
|                                                                                                                                                                        |                                                                                   |                                                                                                 |  |
|                                                                                                                                                                        |                                                                                   | Systems Programming Branch, AID/PSG/NPIC                                                        |  |
|                                                                                                                                                                        | Attachment: A/S                                                                   |                                                                                                 |  |
|                                                                                                                                                                        | Distribution: Orig - Addresse 1 - NPIC/PPI 1 - NPIC/PSO 1 - NPIC/PSO 2 - NPIC/PSO | BS<br>G<br>G/AID                                                                                |  |

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## DISCUSSION OF IIS PROGRAM FUNCTIONS AND CORE MEMORY REQUIREMENTS

- 1. The IIS system consists of the following functional program packages that are loaded into the 494 in a variety of mixes dependent upon a given set of NPIC activities:
  - a. The Data Entry Program (DEN) allows the photo interpreter or his representative to enter the target oriented data for use in NPIC immediate reports into an "on-line" reports file. This program requires approximately 9,000 words of memory and is a remote batch type; i.e., the program is loaded via a remote device but its I/O is handled by the operating system as "batch" messages. The program is non-interactive but can be core resident for long or short periods of time depending upon the actual function performed.
  - b. The Verify Edit and Approval Program (VEA) allows the mission editors/coordinators to use a CRT to review and change information entered via "DEN" above, verifying, editing and approving it for subsequent publication and data base update. This program requires approximately 7,000 words of memory and is a remote conversational type; i.e., a "copy" of the program resides in memory for each CRT "conversing" with the computer.
  - c. The Extended File Control Subprogram (EFC) performs all accesses to the drum based IIS files, preserving the file integrity as well as simplifying file I/O for other IIS application programs. This routine requires approximately 3,000 words of memory and is a non-resident re-entrant type of routine; i.e., core-resident in one copy when needed, yet shared by all IIS programs. It can be considered a subroutine common to all programs, yet using only that core required for one program.

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- d. The Automated Update Program (AUD) accepts "approved" target data (after VEA process) and uses it to update appropriate target in the IDF. This program requires approximately 4,000 words of memory and is scheduled automatically by "EFC" when there is data base update action to perform.
- e. The On-Line Update Program (OUD) allows the Data Base coordinators to recall data from the file on to a CRT; alter the data and return it to the data base (via AUD). This program requires approximately 6,000 words of memory and is a remote conversational type.
- f. The Batch Query Language Program (BQL) allows IIS file users to query the files in a manner that requires passing large portions of the data base, thus requiring processing times prohibitive to the "on-line" language. This program requires approximately 18,500 words of memory and is a remote batch or operator-initiated batch program. Typically, this program (as well as RPG below) will be limited to one or two copies in memory during prime time due to size, core residency time, and volume of I/O activity.
- g. The Report Generation Program (FPG) provides the generalized capability for "hard copy" formatting of IIS outputs. This program requires approximately 22,000 words of memory and is a remote batch type. This program, typically, is called automatically by BQL to format the data acquired from a selection process. Subsets of this program exist within the OUD, VEA, and PIRL programs.
- h. The PI Retrieval Language Program (PIRL) allows IIS file users to query the files using concise statements resulting in limited amounts of highly useful data consisting of specific pieces of file information. These data are usually displayed on a device with limited display area. This program requires approximately 10,000 words of memory and is either remote conversational or remote batch types.
- i. The Presentation Language Program (PLP) provides the capability to define new or altered report formats for use by the RPG program. This program requires approximately 10,000 words of memory and is a remote batch type.

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- j. The Periodic Update Program (PUI) manages the mass storage for the IIS files. The program redistributes the data stored in file overflow/add areas into a compact and efficient arrangement. The program also purges outdated information from the files. This program requires 32,000 words of memory and is a batch type.
- 2. Since the above programs are scheduled for operation in consonance with NPIC's workload, it would be erroneous to merely add the individual program core requirements to arrive at the IIS system core requirements. Typical mixes along with the resulting core requirements are shown below. From these one can appreciate the 80,000 word IIS memory requirements (exclusive of the 10 VEA programs).
  - a. Peak IIS activity (during 1st phase processing):

(1) 10 VEA programs

70K words

(2) Other IIS programs

77K words\*

(147 total words)

3-PIRL 1-RPG

1-EFC 1-AUD

2-DEN

b. "Normal" IIS activity (typical working day with some 1st and 2nd phase processing):

(1) 3 VEA programs

30K words

(2) Other IIS programs

108K words

(138K total words)

2-OUD 1-BOL

1-RPG

1-EFC

1-AUD

1-DEN

4-PIRL

\*The periodic update program was not considered in the above "Other Program Combinations" because it will be scheduled after prime shifts, or after system failure resulting in a partially "destroyed" data base (IDF).

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